

## **ABSTRACT**

A hypobarically-controlled artificial limb for amputees includes a single socket with a volume and shape to receive a substantial portion of the residual limb. A sealed cavity is formed between the socket and the residual limb. The wearer may use a liner over the residual limb for comfort. A vacuum source is connected to a vacuum valve connected to the cavity to suspend the artificial limb from the residual limb and to control and minimize volumetric and fluid changes within the residual limb. A liner for a hypobarically-controlled socket for an artificial limb, with an adhering interface attaching the liner to the inner wall of the socket and forming a seal between the liner and the socket. The liner may be permanently attached to the socket.